

AMENDMENTS TO THE CLAIMS

1. (Original) An apparatus for mounting a component onto a substrate, comprising:
a component supply device for supplying a component to be mounted onto a substrate;
a holder for receiving the component from said component supply device and holding the
component; and

a controller for

(i) prohibiting said holder from mounting the component, when held by said holder, onto the substrate when said controller makes a judgement that said holder would make an interference with another component mounted on the substrate were the component held by said holder attempted to be mounted onto the substrate, and

(ii) causing said holder to mount the component, when held by said holder, onto the substrate when said controller makes a judgement that said holder would not make an interference with another component mounted on the substrate were the component held by said holder attempted to be mounted onto the substrate.

2. (Original) The apparatus according to claim 1, wherein
said controller is also for correcting a position of said holder relative to the substrate, when the component is held by said holder and said controller makes the judgement that said holder would make an interference with the another component mounted on the substrate were the component held by said holder attempted to be mounted onto the substrate, and

(i) prohibiting said holder, after the position of said holder relative to the substrate has been corrected, from mounting the component held by said holder onto the substrate when said controller makes a judgement that said holder would make an interference with the another component mounted on the substrate were the component held by said holder attempted to be mounted onto the substrate, and

(ii) causing said holder, after the position of said holder relative to the substrate has been corrected, to mount the component held by said holder onto the substrate when said

controller makes a judgement that said holder would not make an interference with the another component mounted on the substrate were the component held by said holder attempted to be mounted onto the substrate.

3. (Original) The apparatus according to claim 1, further comprising:
an image processor for recognizing the another component mounted on the substrate,
wherein

said controller is for acquiring information pertaining to the recognizing of the another component by said image processor, and then

(i) prohibiting said holder from mounting the component, when held by said holder, onto the substrate when said controller makes a judgement that said holder would make an interference with the another component mounted on the substrate were the component held by said holder attempted to be mounted onto the substrate, and

(ii) causing said holder to mount the component, when held by said holder, onto the substrate when said controller makes a judgement that said holder would not make an interference with the another component mounted on the substrate were the component held by said holder attempted to be mounted onto the substrate.

4. (Original) An apparatus for mounting a component onto a substrate, comprising:
a component supply device for supplying a component to be mounted onto a substrate;
a holder for receiving the component from said component supply device and holding the component;

an image processor for recognizing a position of the component, when held by said holder, relative to said holder; and

a controller for

(i) prohibiting said holder from mounting the component, when held by said holder, onto the substrate when said controller makes a judgement that said holder would make

an interference with another component mounted on the substrate were the component held by said holder attempted to be mounted onto the substrate, and

(ii) correcting the position of the component, when held by said holder, relative to said holder and then causing said holder to mount the component onto the substrate when said controller makes a judgement that said holder would not make an interference with another component mounted on the substrate were the component held by said holder attempted to be mounted onto the substrate.

5. (Original) The apparatus according to claim 4, wherein
said controller is for making a judgement that said holder would not make an interference with another component mounted on the substrate, were the component held by said holder attempted to be mounted onto the substrate, by determining that the component held by said holder has a height that is greater than a height of the another component mounted on the substrate.

6. (Original) The apparatus according to claim 4, wherein
said controller is for making a judgement that said holder would make an interference with another component mounted on the substrate, were the component held by said holder attempted to be mounted onto the substrate, by

(i) defining a reference area for the another component mounted on the substrate,
(ii) assuming that the position of the component, held by said holder, relative to said holder has been corrected, and
(iii) determining that at least a part of said holder, while holding the component with the position assumed to be corrected, falls outside the reference area.

7. (Original) The apparatus according to claim 4, wherein
said controller is for making a judgement that said holder would make an interference
with another component mounted on the substrate, were the component held by said holder
attempted to be mounted onto the substrate, by

(i) assuming that the position of the component, held by said holder, relative to
said holder has been corrected, and

(ii) determining that at least a part of said holder, while holding the component
with the position assumed to be corrected, overlaps the another component mounted on the
substrate.

8. (Original) The apparatus according to claim 7, wherein
said controller is also for defining a reference area for the another component mounted on
the substrate.

9. (Original) The apparatus according to claim 7, wherein
said controller is also for defining a reference area, that extends from an outline of the
another component mounted on the substrate, for the another component mounted on the
substrate.

10. (New) An apparatus for mounting a component onto a substrate, comprising:
a holder to receive a component from a component supply and hold the component;
an image processor for recognizing a position of the component while being held by said
holder to thereby establish a recognized position of the component; and
a controller for

(i) using the recognized position of the component to linearly and/or
angularly adjust a position of the component relative to said holder, if necessary,

(ii) making a judgement as to whether said holder would make an interference with another component mounted on a substrate were the component held by said holder to be mounted onto the substrate, and

(a) when the judgement is affirmative, prohibiting the component held by said holder from being mounted onto the substrate, and

(b) when the judgement is negative, mounting the component held by said holder onto the substrate.

11. (New) The apparatus according to claim 10, wherein said controller is for making a judgement as to whether said holder would make an interference with another component mounted on a substrate were the component held by said holder to be mounted onto the substrate by determining whether a height of the component held by said holder is greater than a height of the another component mounted on the substrate, and

said controller is also for, when the height of the component held by said holder is determined to be greater than the height of the another component mounted on the substrate, making a judgement that said holder would not make an interference with the another component mounted on the substrate were the component held by said holder to be mounted onto the substrate.

12. (New) The apparatus according to claim 11, wherein said controller is for prohibiting the component held by said holder from being mounted onto the substrate by having the component removed from said holder.

13. (New) The apparatus according to claim 10, wherein said controller is for making a judgement as to whether said holder would make an interference with another component mounted on a substrate were the component held by said holder to be mounted onto the substrate by

(i) defining a reference area for the another component mounted on the substrate,

(ii) assuming that the component held by said holder is correctly positioned relative to said holder, and

(iii) determining whether at least a portion of said holder falls outside the reference area, and

said controller is also for, when at least a portion of said holder is determined to fall outside the reference area, making a judgement that said holder would make an interference with the another component mounted on the substrate were the component held by said holder to be mounted onto the substrate.

14. (New) The apparatus according to claim 13, wherein said controller is for prohibiting the component held by said holder from being mounted onto the substrate by having the component removed from said holder.

15. (New) The apparatus according to claim 10, wherein said controller is for prohibiting the component held by said holder from being mounted onto the substrate by having the component removed from said holder.

16. (New) An apparatus for mounting a component onto a substrate, comprising:
a holder to receive a component from a component supply and hold the component; and
a controller for

(i) making a judgement as to whether said holder would make an interference with another component mounted on a substrate were the component held by said holder to be mounted onto the substrate, and

(a) when the judgement is affirmative, prohibiting the component held by said holder from being mounted onto the substrate, and

(b) when the judgement is negative, mounting the component held by said holder onto the substrate,

wherein said controller is for making a judgement as to whether said holder would make an interference with another component mounted on a substrate, were the component held by said holder to be mounted onto the substrate, by

- (i) defining a reference area for the another component mounted on the substrate,
- (ii) assuming that the component held by said holder is correctly positioned relative to said holder, and
- (iii) determining whether at least a portion of said holder falls outside the reference area, and

wherein said controller is also for, when at least a portion of said holder is determined to fall outside the reference area, making a judgement that said holder would make an interference with the another component mounted on the substrate were the component held by said holder to be mounted onto the substrate.

17. (New) The apparatus according to claim 16, wherein
said controller is for prohibiting the component held by said holder from being mounted onto the substrate by having the component removed from said holder.